

Application Serial No. 09/804,490

Attorney Docket No.: CIBT-P01-114

In the claims:

Please add new claims 56-72.

1. **(Previously presented)** A method for inhibiting growth or differentiation of an epithelial cell, comprising contacting at least an epithelial cell with an amount of an agent effective to inhibit at least one of the growth or differentiation of said epithelial cell, wherein said agent is an anti-hedgehog antibody, and wherein the anti-hedgehog antibody is selected from 5E1, a humanized anti-hedgehog antibody thereof, or fragments thereof.

2. **(Previously presented)** The method of claim 1, wherein the anti-hedgehog antibody is a humanized anti-hedgehog antibody, or fragments thereof.

3-4. **(Cancelled)**

5. **(Previously presented)** A method for inhibiting growth of an epithelial tissue, comprising contacting at least the epithelial tissue with an amount of an agent effective to inhibit proliferation of at least the epithelial cells in the tissue, wherein the agent is an anti-hedgehog antibody, and wherein the anti-hedgehog antibody is selected from 5E1, a humanized anti-hedgehog antibody thereof, or fragments thereof.

6. **(Previously presented)** The method of claim 5, wherein the anti-hedgehog antibody is a humanized anti-hedgehog antibody, or fragments thereof.

7-8. **(Cancelled)**

9. **(Previously amended)** A method for inhibiting growth of hair on an animal, comprising administering to the animal an amount of an agent effective to inhibit growth of hair on said animal, wherein the agent is an anti-hedgehog antibody, which anti-hedgehog antibody inhibits proliferation of hair follicle keratinocytes, and wherein the anti-hedgehog antibody is selected

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from 5E1, a humanized anti-hedgehog antibody thereof, or fragments thereof.

10. **(Previously presented)** The method of claim 9, wherein the anti-hedgehog antibody is a humanized anti-hedgehog antibody, or fragments thereof.

11-12. **(Cancelled)**

13. **(Original)** The method of claim 1, wherein the epithelial cell is a cutaneous epithelial cell.

14. **(Original)** The method of claim 1, wherein the epithelial cell is a dermal keratinocyte.

15. **(Original)** The method of claim 1, wherein the epithelial cell is a mucosal epithelial cell.

16. **(Original)** The method of claim 1, wherein the epithelial cell is an epithelial stem cell.

17. **(Original)** The method of claim 1, wherein the epithelial cell is a hair follicle stem cell.

18-20. **(Cancelled)**

21. **(Previously presented)** The method of claims 2, 6, or 10, wherein the anti-hedgehog antibody binds to a Sonic hedgehog protein.

22-23. **(Cancelled)**

24. **(Previously presented)** A method for inhibiting the proliferation of hair follicle cells, comprising topically contacting the cells with an amount of an agent effective to decrease the proliferation of the hair follicle cells, wherein the agent is an anti-Sonic hedgehog antibody, a humanized anti-Sonic hedgehog antibody thereof, or fragments thereof.

25-29. **(Cancelled)**

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30. **(Previously presented)** The method of claim 1, wherein the anti-hedgehog antibody is 5E1.

31. **(Cancelled)**

32. **(Previously presented)** The method of claim 9, wherein the anti-hedgehog antibody is 5E1.

33. **(Cancelled)**

34. **(Previously presented)** The method of claim 24, wherein the anti-hedgehog antibody is 5E1.

35-36. **(Cancelled)**

37. **(Previously presented)** A method for inhibiting growth or differentiation of an epithelial cell, comprising contacting at least an epithelial cell with an amount of an agent effective to inhibit at least one of the growth or differentiation of said epithelial cell, wherein said agent is an anti-Sonic hedgehog antibody, a humanized anti-Sonic hedgehog antibody thereof, or fragments thereof.

38. **(Previously presented)** A method for inhibiting growth of an epithelial tissue, comprising topically contacting at least the epithelial tissue with an amount of an agent effective to inhibit proliferation of at least the epithelial cells in the tissue, wherein the agent is an anti Sonic-hedgehog antibody, a humanized anti-Sonic hedgehog antibody thereof, or fragments thereof.

39. **(Previously presented)** A method for inhibiting growth of hair on an animal, comprising administering to the animal an amount of an agent effective to inhibit growth of hair on said animal, which agent inhibits proliferation of hair follicle keratinocytes, wherein the agent is an

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anti-Sonic hedgehog antibody, a humanized anti-Sonic hedgehog antibody thereof, or fragments thereof.

40. **(Previously presented)** The method of claim 37, wherein the epithelial cell is a cutaneous epithelial cell.
41. **(Previously presented)** The method of claim 37, wherein the epithelial cell is a dermal keratinocyte.
42. **(Previously presented)** The method of claim 37, wherein the epithelial cell is a mucosal epithelial cell.
43. **(Previously presented)** The method of claim 37, wherein the epithelial cell is an epithelial stem cell.
44. **(Previously presented)** The method of claim 37, wherein the epithelial cell is a hair follicle stem cell.
45. **(Previously presented)** The method of claim 9, wherein the anti-hedgehog antibody affects the anagen phase of the hair growth cycle.
46. **(Previously presented)** The method of claim 24, wherein the anti-hedgehog antibody affects the anagen phase of the hair growth cycle.
47. **(Previously presented)** The method of claim 37, wherein the epithelial cell is an internal epithelial cell.
48. **(Previously presented)** The method of claim 5, wherein the epithelial tissue is an internal epithelial tissue.

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49. **(Previously presented)** The method of claim 48, wherein the internal epithelial tissue is intestinal lining.

50. **(Previously presented)** A method for inhibiting growth or differentiation of a hair follicle stem cell, comprising contacting said cell with an amount of an agent effective to inhibit at least one of the growth or differentiation of said cell, wherein said agent is an anti-hedgehog antibody, and wherein the anti-hedgehog antibody is selected from 5E1, a humanized anti-hedgehog antibody thereof, or fragments thereof.

51. **(Previously presented)** A method for inhibiting the proliferation of hair follicle cells, comprising topically contacting the cells with an amount of an agent effective to decrease the proliferation of the hair follicle cells, wherein the agent is an anti-hedgehog antibody selected from 5E1, a humanized anti-hedgehog antibody thereof, or fragments thereof.

52. **(Previously presented)** The method of claim 9, wherein administering comprises topically administering.

53. **(Previously presented)** A method for inhibiting growth of hair on an animal, comprising administering to the animal an amount of an agent effective to inhibit growth of hair on said animal, wherein the agent is an anti-hedgehog antibody, which anti-hedgehog antibody inhibits proliferation of hair follicle keratinocytes, and wherein the anti-hedgehog antibody is selected from an anti-Sonic hedgehog antibody, a humanized anti-Sonic hedgehog antibody thereof, or fragments thereof.

54. **(Previously presented)** The method of claim 53, wherein administering comprises topically administering.

55. **(Previously presented)** A method for inhibiting the proliferation of hair follicle cells, comprising topically contacting the cells with an amount of an agent effective to decrease the proliferation of the hair follicle cells, wherein the agent is an anti-hedgehog antibody selected

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from an anti-Sonic hedgehog antibody, a humanized anti-Sonic hedgehog antibody thereof, or fragments thereof.

- 56. (New) The method of claim 1, wherein the epithelial cell is a mammalian epithelial cell.
- 57. (New) The method of claim 13, wherein the epithelial cell is a mammalian epithelial cell.
- 58. (New) The method of claim 14, wherein the epithelial cell is a mammalian epithelial cell.
- 59. (New) The method of claim 15, wherein the epithelial cell is a mammalian epithelial cell.
- 60. (New) The method of claim 16, wherein the epithelial cell is a mammalian epithelial cell.
- 61. (New) The method of claim 37, wherein the epithelial cell is a mammalian epithelial cell.
- 62. (New) The method of claim 40, wherein the epithelial cell is a mammalian epithelial cell.
- 63. (New) The method of claim 41, wherein the epithelial cell is a mammalian epithelial cell.
- 64. (New) The method of claim 42, wherein the epithelial cell is a mammalian epithelial cell.
- 65. (New) The method of claim 43, wherein the epithelial cell is a mammalian epithelial cell.
- 66. (New) The method of claim 47, wherein the epithelial cell is a mammalian epithelial cell.
- 67. (New) The method of claim 5, wherein the epithelial tissue is mammalian tissue.
- 68. (New) The method of claim 38, wherein the epithelial tissue is mammalian tissue.
- 69. (New) The method of claim 48, wherein the epithelial tissue is mammalian tissue.

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- 70. (New) The method of claim 49, wherein the epithelial tissue is mammalian tissue.
- 71. (New) The method of claim 47, wherein the epithelial cell is a vertebrate epithelial cell.
- 72. (New) The method of claim 48, wherein the epithelial tissue is vertebrate epithelial tissue.